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FOREST INSECT AND DISEASE DETECTION SURVEY OF THE FLATHEAD NATIONAL FOREST, MONTANA

by

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An aerial forest insect and disease detection survey of the Flathead National Forest was conducted during August. Ground checks were made during the period October 4-7. The following is a resume of current conditions:

WESTERN SPRUCE BUDWORM, Choristoneura occidentalis Freeman.--Budworm defoliation increased in areas along the Swan River and north to Martin City where light to moderate feeding occurred on subalpine fir. Damage also occurred in the Salish Mountains west of Flathead Lake (Fig. 1). A total of 167,000 acres were damaged by budworm on the Flathead National Forest during 1971.

MOUNTAIN PINE BEETLE, Dendroctonus ponderosae Hopk.--Infestations persisted in western white pine stands along the shores of Hungry Horse Reservoir, but at somewhat reduced levels over 1970. Concentrations of red-topped white pines were detected along Hungry Horse, Wheeler, and Quintonkon Creeks (Fig. 2). The largest infestation consisted of about 20 trees killed near the mouth of Wheeler Creek. No 1971 attacks occurred in this infestation but approximately 200 western white pines have been killed during the past 2 to 3 years. A small infestation consisting of eight 1970 attacks and four 1971 attacks occur adjacent to the Quintonkan Creek Road. This area presents a good possibility for a salvage sale because of its accessibility.

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DOUGLAS-FIR BEETLE, Dendroctonus pseudotsugae Hopk.--Infestations increased in 1971, but are still well below the intensity which occurred several years ago (Fig. 2). Several small groups of dead Douglas-fir occur in Abbot Creek near Martin City and on the South Fork near Meadow Creek. Areas of persistent infestations at Tally Lake and Ashley Lake contain small numbers of beetle-killed fir.

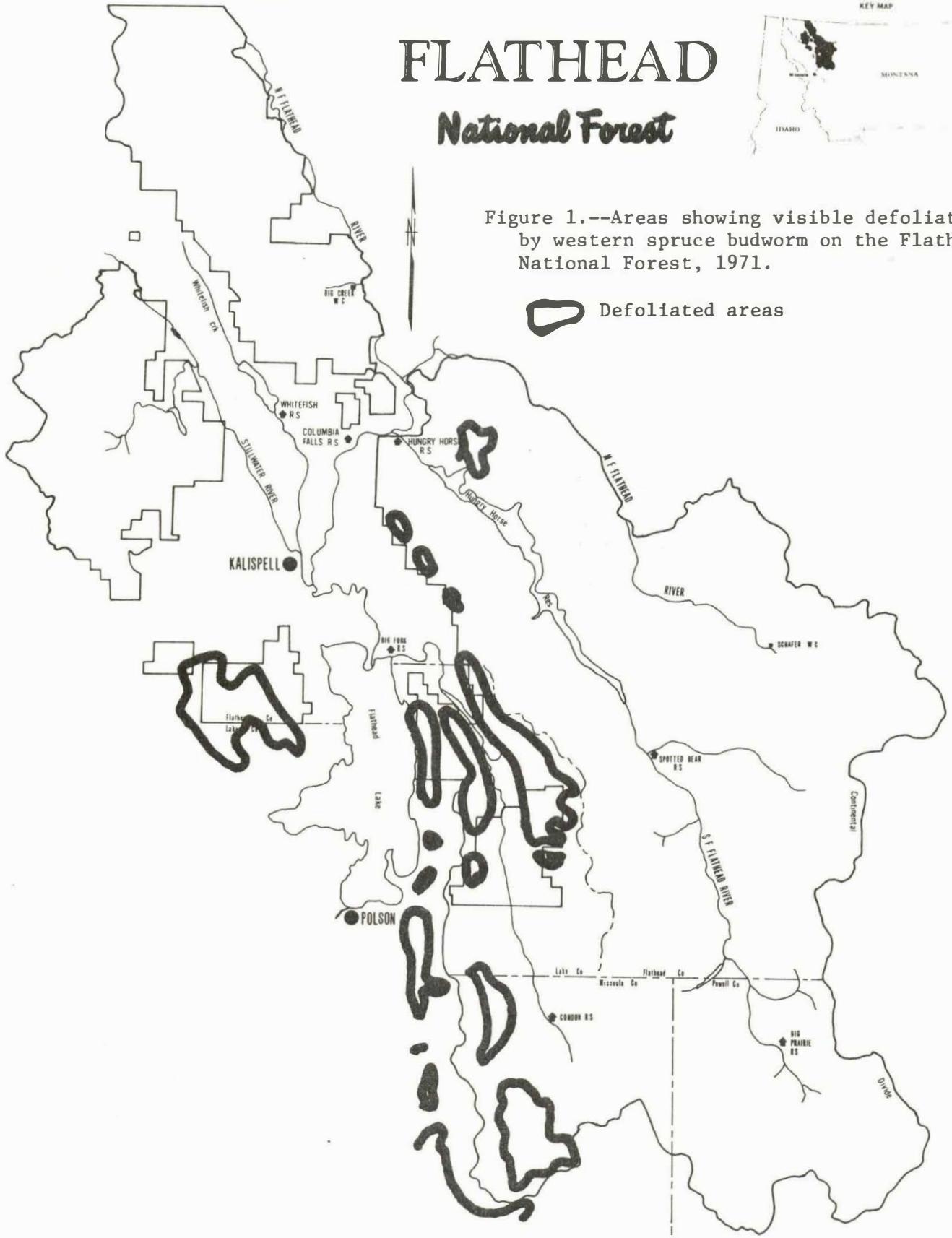
PINE ENGRAVER, Ips pini (Say).--Pine engraver beetle infestations were again very persistent in ponderosa pine stands on private land, along Flathead Lake but were notably absent on National Forest lands.

WHITE PINE WEEVIL, Pissodes strobi (Peck).--Infestations were prevalent in terminals of young Engelmann spruce reproductions in Emery Creek, and most drainages containing spruce on the Forest.

FIR ENGRAVER BEETLES.--Several hundred subalpine fir were killed by Pityokteines minutus (Sw.), and Scolytus ventralis Lec. Largest area of infestation occurred in Cyclone Lake Basin in the North Fork drainage. These beetles are responsible for scattered subalpine fir mortality throughout much of the Flathead National Forest.

DISCUSSION

Insect conditions examined on the Flathead National Forest during the course of this survey can be considered "normal" or endemic with the exception of the spruce budworm infestation and the mountain pine beetle along the shores of Hungry Horse Reservoir. The general Region-wide trend of budworm infestations for the past several years has been a gradual spread to the north and west. If this trend continues, the infestations on the Flathead National Forest can intensify in 1972. Mountain pine beetle infestations along the shores of Hungry Horse Reservoir have been in progress for several years and are probably the result of overmature stagnated stands. Infested overmature trees should be removed by commercial sales wherever possible.



FLATHEAD

National Forest

Figure 1.--Areas showing visible defoliation by western spruce budworm on the Flathead National Forest, 1971.

Defoliated areas

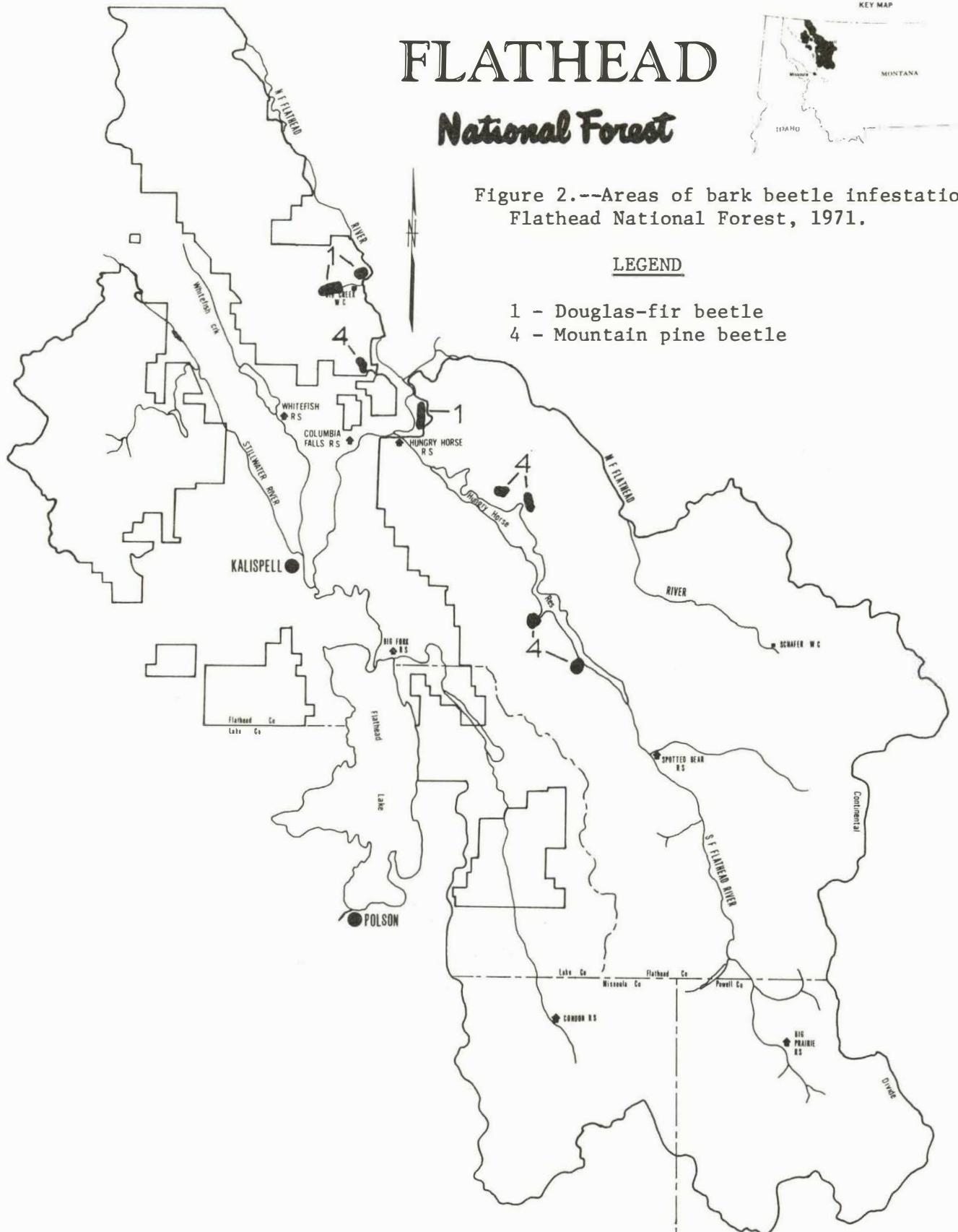


Figure 2.--Areas of bark beetle infestations,
Flathead National Forest, 1971.